AMENDMENTS TO THE CLAIMS

1-54. (Cancelled)

55. (Currently Amended) An apparatus for breaking rock, the apparatus comprising:

a first cartridge having a base and a side wall which form an enclosure;

a propellant inside the enclosure;

a first pressure wave deforming means to promote localized cracking or fracture of a rock surface ~~in a locality of~~ adjacent to the first pressure wave deforming means, the first pressure wave deforming means being ~~and which is~~ exposed to a pressure wave generated by initiating the propellant; and

a second pressure wave deforming means to promote localized cracking or fracture of a rock surface ~~in a locality of~~ adjacent to the second pressure wave deforming means, the second pressure wave deforming means being ~~and which is~~ exposed to the pressure wave generated by initiating the propellant;

wherein the first pressure wave deforming means comprises a junction between the side wall of the first cartridge and the base of the first cartridge, and

wherein the second pressure wave deforming means comprises at least one member disposed inside the first cartridge or outside the first cartridge, or at least one member disposed inside the propellant positioned at a distance away from the base of the first cartridge.

56. (Previously Presented) The apparatus according to claim 55, wherein the first cartridge is shaped to direct a wave of pressurized material, produced by the propellant when initiated, towards a periphery of the base.

57. (Previously Presented) The apparatus according to claim 55, further comprising at least one high-explosive charge disposed on the first cartridge or inside the first cartridge.

58. (Previously Presented) The apparatus according to claim 55, wherein the first cartridge is made from a plastically deformable material.

59. (Previously Presented) The apparatus according to claim 55, wherein the second pressure wave deforming means includes at least one member, which is made from a material which has a density greater than the density of the propellant, disposed on the first cartridge or inside the first cartridge.

60. (Previously Presented) The apparatus according to claim 59, wherein the member that is made from a material which has a density greater than the density of the propellant is turned into a high pressure jet by the action of the propellant when it is ignited.

61. (Previously Presented) The apparatus according to claim 59, wherein an explosive, which acts directly on the member that is made from a material which has a density

greater than the density of the propellant, is used to generate a high pressure jet of the material.

62. (Previously Presented) The apparatus according to claim 55, further comprising:

an explosive;

and a control unit which is operable to initiate the propellant at a first predetermined time and to detonate the explosive at a second predetermined time.

63. (Previously Presented) The apparatus according to claim 55, further comprising at least first and second initiators for initiating the propellant at respective first and second points within the first cartridge,

wherein the first and second points are spaced apart from each other inside the first cartridge.

64. (Currently Amended) An apparatus for breaking rock, the apparatus comprising:

a first cartridge which forms a first enclosure;

a first propellant inside the first enclosure;

a second cartridge which forms a second enclosure;

a second propellant inside the second enclosure;

a first pressure wave deforming means to promote localized cracking or fracture of a rock surface ~~in a locality of~~ adjacent to the first pressure wave deforming means, the first

pressure wave deforming means being ~~and which is~~ exposed to a pressure wave generated by initiating the first propellant; and

a second pressure wave deforming means to promote localized cracking or fracture of a rock surface ~~in a locality of~~ adjacent to the second pressure wave deforming means, the second pressure wave deforming means being ~~and which is~~ exposed to a pressure wave generated by initiating the second propellant;

wherein the first cartridge includes a first initiator for initiating the first propellant,

wherein the second cartridge includes a second initiator for initiating the second propellant, and

wherein the first and second cartridges are positioned in an assembly with the first and second initiators disposed at opposed remote points in the assembly.

65. (Currently Amended) The apparatus according to claim 64,

wherein the first cartridge extends in a longitudinal direction from a base of the first cartridge to a top portion of the first cartridge,

wherein the second cartridge extends in the longitudinal direction from a base of the second cartridge to a top portion of the second cartridge, ~~and~~

wherein the first cartridge is separated from the second cartridge by a predetermined distance in the longitudinal direction, and

wherein the first cartridge and the second cartridge are disposed such that the top portion of the first cartridge opposes the base of the second cartridge.

66. (Currently Amended) The apparatus according to claim 65,

wherein the first cartridge is separated from the second cartridge in the longitudinal direction by stemming material, and

wherein the stemming material is disposed outside of both of the first cartridge and the second cartridge.

67. (Previously Presented) The apparatus according to claim 55,

wherein the first cartridge extends in a longitudinal direction from the base of the first cartridge to a top portion of the first cartridge, and

wherein the first pressure wave deforming means and the second pressure wave deforming means are located at different positions along the longitudinal direction of the first cartridge.

68. (Previously Presented) The apparatus according to claim 55, wherein the second pressure wave deforming means comprises a ring-shaped member.